

**REMARKS**

**I. Status of the Application.**

Claims 2-18, 20, and 24 are pending in the application.

In the Office Action, the Examiner:

- (a) Rejected Claims 6-10, 13, 15, 17, 18, 20, and 24 under U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,896,004 to Feldman et al. ("Feldman") in view of U.S. Patent No. 4,337,414 to Young;
- (b) Rejected Claims 2, 4, and 5 under 35 U.S.C. § 103(a) as being unpatentable over Feldman, in view of Young as applied to Claim 20, and further in view of U.S. Patent No. 5,824,130 to Oga et al. ("Oga");
- (c) Rejected Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Feldman, in view of Young in further view of Oga as applied to Claim 2, and still further in view of U.S. Patent No. 5,680,005 to Soules et al. ("Soules");
- (d) Rejected Claims 11 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Feldman, in view of Young as applied to Claim 7, and further in view of U.S. Patent No. 5,617,659 to Okubo;
- (e) Rejected Claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Feldman, in view of Young as applied to Claim 13, and further in view of U.S. Patent No. 6,696,788 to Lapatovich et al. ("Lapatovich"); and
- (f) Rejected Claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Feldman in view of Young as applied to Claim 15.

**II. Response.**

In this response, Applicants respectfully traverse the Examiner's rejections of Claims 2-18, 20, and 24.

**III. The Rejection of Claims 2-18, 20, and 24 Under 35 U.S.C. §103(a) Should Be Withdrawn.**

To establish a *prima facie* case of obviousness it must be shown, *inter alia*, that "all of the claim limitations must be taught or suggested by the prior art." MPEP §§ 2143 and 2143.03 (citing *In re Royka*, 490 F.2d 981 (C.C.P.A. 1974)). Applicants respectfully submit that the rejection of Claims 2-18, 20, and 24 under 35 U.S.C. § 103(a) should be withdrawn because the Examiner has failed to establish a *prima facie* case of obviousness with respect to any of these claims.

**A. *The Rejection of Claims 6-10, 13, 15, 17, 18, 20, and 24 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Feldman in View of Young Should Be Withdrawn.***

Applicants respectfully submit that the rejection of Claims 6-10, 13, 15, 17, 18, 20, and 24 under 35 U.S.C. §103(a) should be withdrawn because the combination of Feldman and Young does not disclose, teach or suggest all of the limitations of any of these claims.

Claims 6-10, 13, 15, 17, and 18 depend from independent Claim 20. Claim 20 requires "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil." The other independent claim, Claim 24, requires "a source of electromagnetic waves, said source of

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electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said portion of said tube residing within said shell encloses a flowing substance, said source of electromagnetic waves is energized by an alternating electrical current."

Applicants respectfully submit that the rejections of Claims 6-10, 13, 15, 17, 18, 20, and 24 under 35 U.S.C. § 103(a) should be withdrawn because the combination of Feldman and Young fail to disclose all of the limitations of the claims against which they are asserted. Independent Claims 20 and 24 include limitations relating to a source of electromagnetic waves. On page 3 of the Office Action, Examiner states that "Feldman et al. fail to disclose a source of electromagnetic waves in the form of a coil. Young discloses a lamp device and teach [sic] providing the lamp with a bucking coil (58)...." Young teaches having a "ballast means [which includes] an inductor 58 and a capacitor 59 that are connected in series" Young, col. 8, ll. 66-68. The "inductor 58 and capacitor 59" are used to "generate a voltage across the lamp" Young, col. 9, ll. 21-26. As such, Examiner is equating the inductor 58 of Young with the signal source as recited in Applicants' Claims 20 and 24. Even if it were assumed the inductor of Young may be described as the signal source of the present claims (which it should not be), Young clearly discloses using an inductor and capacitor together, namely as a ballast. By requiring an inductor and a capacitor, Young teaches away from using an inductor without a capacitor, let alone a signal source without a capacitor. Therefore, the combination of Feldman and Young fails to disclose the limitations of Claim 20. In addition, the combination of Feldman and Young fails to disclose the limitations of Claim 24.

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For the foregoing reasons, Applicants' respectfully submit that the rejection of Claims 20 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Feldman in view of Young should be withdrawn. Moreover, Applicants respectfully submit that the rejections of Claims 6-10, 13, 15, 17, and 18 under 35 U.S.C. § 103(a) should be withdrawn, because each of these claims depends from and incorporates all limitations of Claim 20, which is not obvious in view of Feldman, Young, or any other relevant prior art. Accordingly, Applicants respectfully submit that Claims 6-10, 13, 15, 17, 18, 20, and 24 should proceed to allowance.

*B. The Rejection of Claims 2, 4, and 5 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Feldman in View of Young and Further in View of Oga Should Be Withdrawn.*

Claims 2, 4, and 5 depend from independent Claim 20. The bulb claimed in Applicants' independent Claim 20 includes the limitation "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil." For the reasons given in Section III.A. of these Remarks, Feldman and Young fail to disclose this limitation.

It is respectfully submitted that the combination of Feldman, Young, and Oga also fails to disclose this limitation. The combination of Feldman, Young, and Oga does not disclose, teach or suggest "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass

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through said shell, wherein said source of electromagnetic waves comprises a bucking coil" of Applicants' independent Claim 20.

Consequently, Applicants respectfully submit that the combination of Feldman, Young, and Oga fails to teach, disclose or suggest all of the limitations of Applicants' independent Claim 20. Because Claims 2, 4, and 5 depend from independent Claim 20 and incorporate all of the limitations of independent Claim 20, it is respectfully requested that the combination of Feldman, Young, and Oga fail to teach, disclose or suggest all of the limitations of Claim 2, 4, and 5. "If an independent claim is not obvious under 35 U.S.C. §103, then any claim depending therefrom is not obvious." MPEP § 2143.03 (citing *In re Fine*, 837 F.2d 1382, 1385 (C.C.P.A. 1970)).

Accordingly, it is respectfully requested that the rejection of Claims 2, 4, and 5 under 35 U.S.C. §103(a) be withdrawn, and Applicants respectfully submit that Claims 2, 4, and 5 should proceed to allowance.

C. *The Rejection of Claim 3 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Feldman in View of Young, Further in View of Oga, and Still Further in View of Soules Should Be Withdrawn.*

Claim 3 depends from independent Claim 20. The bulb claimed in Applicants' independent Claim 20 includes the limitation "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil." For the reasons given in Sections III.A. and III.B. of these Remarks, Feldman, Young, and Oga fail to disclose this limitation.

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It is respectfully submitted that the combination of Feldman, Young, Oga, and Soules also fail to disclose this limitation. The combination of Feldman, Young, Oga, and Soules does not teach, disclose, or suggest the limitation "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil," of Applicants' independent Claim 20.

Consequently, Applicants respectfully submit that the combination of Feldman, Young, Oga, and Soules fails to teach, disclose or suggest all of the limitations of Applicants' independent Claim 20. Because Claim 3 depends from independent Claim 20 and incorporates all of the limitations of independent Claim 20, it is respectfully requested that the combination of Feldman, Young, Oga, and Soules fails to teach, disclose or suggest all of the limitations of Claim 3. "If an independent claim is not obvious under 35 U.S.C. §103, then any claim depending therefrom is not obvious." MPEP § 2143.03 (citing *In re Fine*, 837 F.2d 1382, 1385 (C.C.P.A. 1970)).

Accordingly, it is respectfully requested that the rejection of Claim 3 under 35 U.S.C. §103(a) be withdrawn, and Applicants respectfully submit that Claim 3 should proceed to allowance.

D. *The Rejection of Claims 11 and 12 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Feldman in View of Young, and Further in View of Okubo Should Be Withdrawn.*

Claims 11 and 12 depend from independent Claim 20. The bulb claimed in Applicants' independent Claim 20 includes the limitation "a source of electromagnetic waves, said source of

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electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil." For the reasons given in Section III.A. of these Remarks, Feldman and Young fail to disclose this limitation.

It is respectfully submitted that the combination of Feldman, Young, and Okubo also fail to disclose this limitation. The combination of Feldman, Young, and Okubo does not disclose, teach or suggest "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil," of Applicants' independent Claim 20.

Consequently, Applicants respectfully submit that the combination of Feldman, Young, and Okubo fails to teach, disclose or suggest all of the limitations of Applicants' independent Claim 20. Because Claims 11 and 12 depend from independent Claim 20 and incorporate all of the limitations of independent Claim 20, it is respectfully requested that the combination of Feldman, Young, and Okubo fails to teach, disclose or suggest all of the limitations of Claim 11 and 12. "If an independent claim is not obvious under 35 U.S.C. §103, then any claim depending therefrom is not obvious." MPEP § 2143.03 (citing *In re Fine*, 837 F.2d 1382, 1385 (C.C.P.A. 1970)).

Accordingly, it is respectfully requested that the rejection of Claims 11 and 12 under 35 U.S.C. §103(a) be withdrawn, and Applicants respectfully submit that Claim 11 and 12 should proceed to allowance.

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*E. The Rejection of Claim 14 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Feldman in View of Young, and Further in View of Lapatovich Should Be Withdrawn.*

Claim 14 depends from independent Claim 20. The bulb claimed in Applicants' independent Claim 20 includes the limitation "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil." For the reasons given in Section III.A. of these Remarks, Feldman and Young fail to disclose this limitation.

It is respectfully submitted that the combination of Feldman, Young, and Lapatovich also fail to disclose this limitation. The combination of Feldman, Young, and Lapatovich does not disclose, teach or suggest the limitation "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil," of Applicants' independent Claim 20.

Consequently, Applicants respectfully submit that the combination of Feldman, Young, and Lapatovich fails to teach, disclose or suggest all of the limitations of Applicants' independent Claim 20. Because Claim 14 depends from independent Claim 20 and incorporates all of the limitations of independent Claim 20, it is respectfully requested that the combination of Feldman, Young, and Lapatovich fails to teach, disclose or suggest all of the limitations of Claim 14. "If an independent claim is not obvious under 35 U.S.C. §103, then any claim depending

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therefrom is not obvious." MPEP § 2143.03 (citing *In re Fine*, 837 F.2d 1382, 1385 (C.C.P.A. 1970)).

Accordingly, it is respectfully requested that the rejection of Claim 14 under 35 U.S.C. §103(a) be withdrawn, and Applicants respectfully submit that Claim 14 should proceed to allowance.

F. *The Rejection of Claim 16 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Feldman in View of Young Should Be Withdrawn.*

Claim 16 depends from independent Claim 20. The bulb claimed in Applicants' independent Claim 20 includes the limitation "a source of electromagnetic waves, said source of electromagnetic waves positioned such that electromagnetic waves emanating from said source of electromagnetic waves pass through said shell, wherein said source of electromagnetic waves comprises a bucking coil." For the reasons given in Section III.A. of these Remarks, Feldman and Young fail to disclose this limitation.

Because Claim 16 depends from independent Claim 20 and incorporates all of the limitations of independent Claim 20, it is respectfully requested that the combination of Feldman and Young fails to teach, disclose or suggest all of the limitations of Claim 16. "If an independent claim is not obvious under 35 U.S.C. §103, then any claim depending therefrom is not obvious." MPEP § 2143.03 (citing *In re Fine*, 837 F.2d 1382, 1385 (C.C.P.A. 1970)).

Accordingly, it is respectfully requested that the rejection of Claim 16 under 35 U.S.C. §103(a) be withdrawn, and Applicants respectfully submit that Claim 16 should proceed to allowance.

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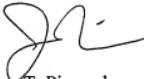
**CONCLUSION**

It is respectfully submitted that Applicants have made a patentable contribution to the art, and that this response places Claims 2-18, 20, and 24 in condition for allowance or in the alternative that this response places the Application in a better form for appeal. Favorable reconsideration and allowance of this Application is respectfully requested.

In the event Applicants have inadvertently overlooked the need for payment of any fees, Applicants authorize any deficiency to be charged to deposit account 09-0007. When doing so, please reference the above-listed docket number. If there are any other objections or rejections, the Examiner is invited to contact the undersigned to discuss the Application.

Respectfully submitted,

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Date: 11/10/08